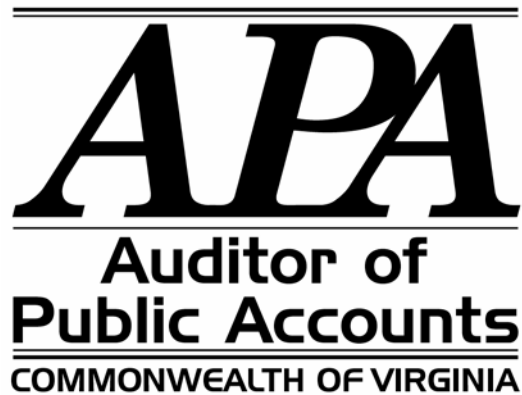


VIRGINIA INFORMATION TECHNOLOGIES AGENCY

RICHMOND, VIRGINIA

AS OF DECEMBER 15, 2004



AUDIT SUMMARY

Our audit of the Virginia Information Technologies Agency as of December 15, 2004, found:

- The Project Management Division is fulfilling their statutory responsibilities, except in the areas of oversight and monitoring of project development;
- The Direct Bill system has adequate internal controls and provides reliable information. The Physical IT Asset system does not contain all VITA-owned assets due to system upload problems and because VITA has not issued detailed policies and procedures;
- Security Services has not established an understanding with transitioned agencies regarding their roles and responsibilities related to security and compliance with VITA standards. Recently Security Services began meeting with agency information security officers to clarify roles and also began revising outdated security policies and procedures;
- Security Services complies with their statutory responsibility to perform database security audits but relies on the work of others. They have not established a process to identify databases that are at greatest risk and have not developed an audit schedule based on their knowledge of those risks; and
- Management has started developing a methodology for identifying, calculating, and reporting savings; however, the current reporting mechanism includes savings amounts that will never transfer to the Technology Infrastructure Fund.
- VITA has taken adequate corrective action with respect to the prior year audit findings as indicated in Appendix A.

- TABLE OF CONTENTS -

	<u>Page</u>
AUDIT SUMMARY	
Transmittal Letter	1-2
Report	3-25
Appendix A - Follow-up on Prior Findings	26-30
Appendix B – Project Management Division Statutory Responsibilities	31-32
Appendix C – Project Approval Process	33
Appendix D - Summary of Report Recommendations	34-38
Agency Response	39-40
Agency Officials	41



Commonwealth of Virginia

Walter J. Kucharski, Auditor

**Auditor of Public Accounts
P.O. Box 1295
Richmond, Virginia 23218**

December 22, 2004

The Honorable Mark R. Warner
Governor of Virginia
State Capital
Richmond, Virginia

The Honorable Lacey E. Putney
Chairman, Joint Legislative Audit
and Review Commission
General Assembly Building
Richmond, Virginia

We have completed an audit of the **Virginia Information Technologies Agency (VITA)** as of December 15, 2004. We conducted our overall review in accordance with the standards for performance audits set forth in Government Auditing Standards, issued by the Comptroller General of the United States.

Objectives

Our six objectives for the review of VITA were to determine that VITA's:

- Project Management Division is fulfilling their statutory responsibilities;
- Direct Bill and Physical IT Asset systems have adequate internal controls and provide reliable information;
- Security Services has established an understanding with transitioned agencies regarding their roles and responsibilities related to security and compliance with VITA standards;
- Security Services complies with their statutory responsibility to perform database security audits and have established a process to identify databases that are at greatest risk and have developed an audit schedule based on their knowledge of those risks;
- Management has a methodology for identifying, calculating, and reporting savings; and
- Management has taken adequate corrective action to address prior year audit findings.

Audit Scope

Our audit examined VITA's activities for the period December 1, 2003, through December 15, 2004, with a heavy emphasis on current activities due to VITA's transitioning environment. We focused primarily on VITA's operations center but also involved VITA's activities at selected transitioned agencies.

Audit Methodology

Our work consisted of management and departmental inquiries, gaining an understanding of processes and controls by conducting walk-throughs, examination of VITA's documentation, selection and tests of various samples, review of VITA's policies and standards, and meetings with selected transitioned agencies.

We discussed this report with the Chief Information Officer and VITA management at an exit conference on January 7, 2005.

Audit Conclusion

Overall we found that: the Project Management Division is fulfilling their statutory responsibilities, VITA's systems have adequate internal controls and provide reliable information; Security Services has not established understanding with agencies regarding their security roles but does comply with their statutory responsibility to audit database security; VITA's management has a methodology to identify savings; and, management has taken adequate corrective action to address prior audit findings. Our recommendations to improve processes and controls in many of these areas and they can be found throughout this report and in a summary in Appendix D.

AUDITOR OF PUBLIC ACCOUNTS

KKH:whb
whb:35

REASON FOR AUDIT

In the past eighteen months, the Commonwealth consolidated its information technology agencies, and transferred personnel, equipment, and the technology infrastructure from individual executive branch agencies into the Virginia Information Technologies Agency (VITA), headed by the Chief Information Officer (CIO). The Information Technology Investment Board (Board) oversees VITA and the CIO: has the power to recommend information technology projects to both the Governor and General Assembly; and oversees the projects, including having the power to discontinue them.

The purpose of this audit is to understand additional divisions, processes, and systems created by VITA and to evaluate the internal controls in these areas not addressed in our January 2004 review of VITA. Throughout the report we will make recommendations, where appropriate, to improve processes and control. This audit also includes a follow-up on our recommendations from the January 2004 review and reports the status of corrective action taken by VITA.

DESCRIPTION OF ORGANIZATION

Our previous report titled, “Virginia Information Technologies Agency,” provided a description of the Board, CIO, and VITA, and we have chosen not to repeat that information in this report. Instead, we encourage the reader to review the previous report, available electronically at www.apa.virginia.gov. One component of the VITA organization not discussed in our earlier report is the Project Management Division (PMD).

Project Management Division

Section 2.2-2016 of the Code of Virginia requires the PMD to support the CIO and Board’s management of the Commonwealth’s information technology investments. Functionally, the PMD has two offices, the Enterprise Project Office and the Project Management Office. The Enterprise Project Office coordinates reviews of all Public-Private Education Facilities and Infrastructure Act (PPEA) proposals submitted to VITA and has four approved positions, two of which are vacant at this time. The Project Management Office supports strategic planning, enterprise program management, and project oversight, which we discuss in detail later in this report. This office has eight approved positions, two of which are currently vacant.

AREAS OF REVIEW

Introduction

For VITA to achieve success, it is important that the Board and CIO establish a long-term IT strategic vision for the Commonwealth. This vision then becomes the baseline against which to measure organizational decisions.

Our audit focused primarily VITA’s operational activities and we discuss our work and results within the various audit objectives below. However, the lack of a Commonwealth IT strategic vision is one area of concern we found consistently in our audit that affects many of VITA’s operational activities. We believe a plan that sets the Commonwealth’s long-term goals and creates a vision for Virginia’s IT future would provide a framework upon which VITA operations could base their decisions.

IT Strategic Vision

The foundation for successful management of information technology is the development of a comprehensive strategic vision. In September 2002, the Governor issued his four-year strategic plan for technology (2002-2006), entitled, “Virginia in the Global Digital Economy.” This plan addressed the management of technology in state government as well as economic development initiatives in Virginia’s private sector.

In his plan, the Governor stated his vision was for the effective and efficient use of information technology in state government. To that end, he recommended the creation of a Chief Information Officer and proposed the following initiatives:

1. Consolidate IT infrastructure and provide centralized services;
2. Plan, budget, and track IT expenditures; and
3. Manage IT procurement.

This strategic vision resulted in the creation of the Board, an independent CIO role, and VITA. VITA has used this IT strategic plan to guide them in the transitioning of agency personnel and assets. However, with the transition now complete and VITA focusing on transformation, they need an updated Commonwealth’s IT strategic vision to provide direction for these efforts.

Commonwealth IT Strategic Plan

Section 2.2-2007 of the Code of Virginia requires the CIO to develop a Commonwealth IT strategic plan, approved by the Board. The CIO has yet to develop his plan since he has focused primarily on guiding VITA through its transition phase. This plan is critical because it drives the development of the Commonwealth’s enterprise architecture and individual agency IT plans that later become priority projects the Board recommends for funding.

As the CIO and VITA begin efforts to develop a Commonwealth IT strategic plan, they should take into consideration other Commonwealth strategic planning initiatives. The 2003 General Assembly passed legislation creating the Council on Virginia’s Future and charging them with providing long-term focus on high priority issues for the Commonwealth. The Council’s work should provide continuity across administrations for high priority issues. The Council has developed a preliminary strategic vision as well as long-term objectives, and they will provide the business strategies for the Commonwealth.

IT strategic planning should consider and support the Commonwealth’s business strategies. Therefore, the CIO should work with the Council, and any other organization providing strategic direction for the Commonwealth, when creating the IT strategic plan.

The CIO and VITA are updating VITA’s operational strategic plan. However, this is occurring from a bottom-up approach, with existing activities driving goal, objective, mission, and vision development. In an ideal situation strategic planning best practices dictate a top-down approach, where the strategic vision guides the development of the mission, objectives, and goals. This provides for a more stable strategic vision.

Commonwealth Enterprise Architecture

Without a current Commonwealth IT strategic plan in place, the Board, CIO, and VITA have had to use alternative sources to help set priorities. The Commonwealth’s Enterprise Architecture is the primary alternative source.

At its most basic level, an enterprise architecture defines the information technology currently in use and the desired information technology for use in the future to support the business needs of an organization. As noted above, those business needs should come from the strategic vision; therefore, the enterprise architecture should reflect the strategic vision.

The foundation for the Commonwealth's Enterprise Architecture came from the work of the former Department of Technology Planning, with the help of the Council on Technology and Science, beginning in fiscal year 2000. Their vision document established the most significant and influencing trends on enterprise and business strategies that drives the enterprise architecture. Their conceptual architecture document described eight enterprise architecture technology areas to include network, middleware, security, platform, application, information, database, and systems management. The goal of these documents was the promotion of uniformity across the Commonwealth with regard to these specific domains.

The Department of Technology Planning issued detailed reports for the network, middleware, and security architectures in 2001 and VITA issued the platform architecture in 2004. VITA planned to update the first three domains in spring of 2004; however, due to staffing constraints, these updates have not occurred, and there has been no work performed on the remaining domains.

Recommendation

The CIO and the Board should update the Commonwealth's IT strategic plan and must consider the Commonwealth's business strategies coming from other organizations, such as the Council on Virginia's Future. Additionally, although the Board has defined parts of the Commonwealth's enterprise architecture, it is incomplete and partially outdated. In March 2004, the Board approved the Commonwealth's policy regarding strategic planning, but has not started implementing the policy.

For VITA to achieve success, it is important that the Board and CIO establish a long-term Commonwealth IT strategic vision. This vision becomes the baseline against which organizational decisions at the Commonwealth, VITA, and individual state agency levels will measure future performance.

The following sections describe the work we performed and our recommendations.

Objective 1: Determine that VITA's Project Management Division is fulfilling their statutory responsibilities.
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Project Management Responsibilities

VITA's Project Management Division (PMD) was created as a result of several audit reports in recent years highlighting systems development concerns including one issued by JLARC in January 2003 titled "A Review of Information Technology Systems Development." This report recommended that the General Assembly create a project management office as a solution to control overspending, reduce project failures, and ensure project quality. This recommendation coincided with the Governor's strategic technology plan recommending the consolidation of the Commonwealth's IT infrastructure; therefore, both initiatives became part of the legislation creating VITA.

PMD operates within the Strategic Management Services Directorate and has several primary responsibilities. We reviewed their statutory responsibilities and met with PMD staff to understand how they accomplish these duties, with a detailed comparison in Appendix B. The PMD has successfully implemented, fulfilled, or is fulfilling many of their responsibilities. However, there are several responsibilities that they have not accomplished for a variety of reasons.

We found that the PMD has accomplished the following:

- Developed an approval process for IT projects;
- Created a project management methodology for developing and implementing IT projects;
- Implemented a program that provides training to agency project managers;
- Reviews agency IT strategic plans and recommends approval to the CIO;
- Monitors the implementation of agency IT strategic plans by tracking procurements and projects;
- Reviews and recommends IT projects based on project selection and ranking criteria approved by the CIO and the Board;
- Reviews and recommends projects for planning approval;
- Reviews and recommends projects for development approval; and
- Approves major IT procurements.

Most of the responsibilities above relate to the procedures involved in getting a project started, which we describe later in the section titled, “*Support of Agency Strategic Planning*.” Overall, we found that PMD has developed detailed procedures and has effectively communicated them to the agencies. They have also created procedures that they follow to evaluate and recommend projects and have obtained Board and CIO approval of the processes.

We found that the PMD has only partially fulfilled their responsibility to form project oversight committees. While they require the establishment of an internal agency oversight committee in project charters, PMD has not participated in these committees as required by VITA’s Technology Management Policy. PMD said that without additional resources they are unable to comply with their own policy.

We also found that PMD has established an information clearinghouse that identifies best practices and new developments. The clearinghouse is a web-based system where agencies submit lessons learned, however, there are only three submissions posted to date. PMD does not have the resources required to monitor that agencies follow the Project Management Standard requiring their submission of lessons learned.

One significant responsibility area that PMD has not fulfilled involves the requirement to provide on-going assistance and support to all major IT projects, commonly referred to by PMD staff as an Independent Verification and Validation (IV&V). The PMD has been somewhat active in a new Elections system, but according to PMD, will need additional staffing resources if they are to be involved in all major IT projects. Currently, the priorities of PMD daily operations, such as establishing the division and developing agency and PMD procedures, takes priority over the PMD’s involvement in additional major IT projects.

PMD has identified the need for additional positions and funding in order to provide project oversight, monitoring, assistance, and support. The PMD currently has six active staff and two vacant positions with a \$1.6 million dollar annual operating budget. VITA has submitted a general fund budget request to the Department of Planning and Budget to enhance IT strategic planning and project management performance and decision making. This request includes amounts to fund three additional PMD staff, with two scheduled to work on the IV&V program.

In October 2004, the CIO reported to the Board that PMD hired four vendors to conduct assessments of the 21 active, major IT projects. The assessments (referred to as an IV&V) should provide a current snapshot of the management of these projects. The reviews began on November 10th, each performed by a three-person team scheduled to take eight days, with a report delivered to PMD by the eighth day. The assessments involve the review of the project documentation for 55 detailed tasks in broad review areas such

as project management, risk management, communications, and personnel. The vendors are to have all assessments completed by January 12th and status of the 21 active, major IT projects provided to the Board.

VITA will pay for the assessment and obtain reimbursement from the agencies for their project review. The assessments should cost about \$525,000 in total with nearly \$50,000 additional estimated for overhead. Since each assessment team has three members, we calculated a total of 504 work days (or two man years) required to perform all of the assessments. As noted earlier, PMD's general fund budget request includes two full-time staff to perform IV&V work at a cost of \$209,000, including salary and benefits. This is \$315,000 less than the amount paid to the vendors for the same amount of work days' effort.

Recommendation

The PMD is not fulfilling all of their statutory responsibilities, particularly in the area of project oversight, monitoring, and assistance. This is one of their most critical responsibilities since the primary reason for the creation of the PMD was to reduce the risk of project failure through oversight.

Because PMD is not performing this work, they were unable to provide the CIO and the Board with a status of the project management for the active, major IT projects in the Commonwealth when it was requested. Instead, PMD hired vendors to perform the one-time assessments at a cost that could have funded 5 full-time PMD staff.

PMD has requested a general fund appropriation to increase their staff. Of the nine requested, two are designated to perform work similar to the hired vendors, at a cost of \$209,523, including salary and benefits. This is about \$315,000 less than the cost to hire the vendors for the equivalent number of man days of effort.

General funding is one solution to pay for PMD staff; however, since VITA has traditionally operated as an internal service fund, it is likely that the Governor and General Assembly may reject this funding request. If this occurs, PMD can still hire full-time staff and develop service rates that they can charge to the agencies for IT projects reviews. We recommend that PMD explore this alternative since it would be more cost effective than hiring the vendors and result in reduced costs to the agencies that are eventually paying for these services.

Full-time PMD staff could develop on-going working relationships with the agencies throughout the project development life-cycle, which is generally several years. Having these staff in-house would make them available to the CIO and the Board at all times to give independent updates on the project and recommend project suspension if there were project management concerns.

Policies, Standards and Guidelines

To achieve effective project management that supports best practices, the PMD creates and updates project management policies, standards, and guidelines (herein referred to as "guidance") that agencies follow. The six PMD employees are responsible for writing all guidance and providing support across the Commonwealth in terms of project management best practices and its various components.

We reviewed project management guidance which includes the following:

- *Commonwealth Technology Management Policy*, issue March 2004, establishes a comprehensive and uniform policy for the management and oversight of technology investments.

- *Commonwealth Project Management Guideline*, issued April 9, 2002, establishes a comprehensive methodology for projects and document templates to support selection, planning, execution, control, and closeout of a project.
- *Project Manager Selection and Training Standard*, issued September 26, 2003, establishes the minimum qualifications and training standards for all project managers of Commonwealth information technology projects.
- *Project Management Standard*, issued October 28, 2004, describes management standards for information technology projects and procurements with total cost greater than \$100,000.

We compared the guidance to the Project Management Book of Knowledge (PMBOK), published by the Project Management Institute, an organization considered an industry expert in project management best practices. We found VITA's guidance closely resembles PMBOK methodologies. As mentioned previously in the section titled, "Project Management Responsibilities," we are concerned that staffing limitations inhibit PMD's ability to implement programs outlined in their guidance, actively monitor projects, and enforce their policies, standards, and guidelines.

Support of Agency Strategic Planning

To understand how the PMD supports strategic planning, we reviewed VITA's website and met with PMD staff. The PMD develops guidance for agencies to use in developing their individual IT strategic plans. The PMD also provides analytical and administrative support to VITA, the CIO, and the Board, by evaluating and recommending approval of agency IT strategic plans and approval of technology projects and procurements that support the IT strategic plan.

As discussed earlier, the CIO and the Board have not developed a Commonwealth IT strategic plan from which PMD can base their evaluations and recommendations regarding individual agency IT strategic plans. Instead, the PMD must evaluate, rank, and recommend projects on an agency-by-agency basis without consideration of whether their projects support Commonwealth objectives. As recommended previously in this report, a Commonwealth strategic plan is important to VITA and the Board as they move forward in deciding which projects to approve for development and recommend for funding.

The Code of Virginia, Section 2.2-2458, requires the Board to submit a list of recommended technology investment projects and priorities for funding such projects to the Governor and General Assembly by September 1 of each year. See Appendix C for a flowchart that provides an overview of the detailed process described below.

The PMD supports the Board in their effort to prepare an annual Priority Projects report (commonly referred to as the RTIP). The following is the schedule followed for the report's creation:

March	Project Selection and Ranking Criteria finalized by Board
April	CIO issues IT Strategic Plan guidance to agencies
June	PMD issues draft Priority Projects report to Secretaries
July	PMD submits draft Priority Projects report to CIO
August	CIO issues Priority Projects report to Board
September	Board issues Priority Projects report to Governor and General Assembly

The process begins with agencies entering their project requests into VITA's on-line IT Strategic Planning system which stores and manages project information. PMD requires agencies to tie back their IT

strategic plan to their business strategic plan that they submit independently to the Department of Planning and Budget when making their budget request. Additionally, the agency must rank their project requests in order from most to least important. PMD then uses the Board approved project ranking and selection criteria to assign a value to their projects so they can be compared to other Commonwealth projects.

Projects can earn a possible 100 points and the project must meet or exceed fifty points in order for the PMD to consider the project for the Priority Projects report. The PMD has created guidelines that help the agencies score each of the criteria, which we describe below. Most criteria have a definite yes or no type answer, but some are open to agency interpretation.

Before a project request can move forward, the PMD supposedly verifies that the agency IT strategic plan supports the core business functions. Every major and non-major project must reference a core business process and/or a Commonwealth initiative. PMD also supposedly verifies the agency assigned project value in terms of the ranking and selection criteria and reviews it for accuracy, completeness, and reasonability. PMD uses the information to prepare a draft Priority Projects report that they distribute to the various Secretaries.

Secretaries review the report and provide their own priority order for their responsible agencies. PMD then uses this information to select at least two projects per Secretary or 30 percent of a Secretary's proposed projects and prepares a report for the CIO's review and ranking. The CIO ranks the projects and submits the Priority Projects report to the Board for their approval by the September 1 deadline.

The following criteria and values were used in the 2004 ranking.

Criteria	Value
Does the project support the Commonwealth Strategic Plan for Technology initiatives?	5
Does the project support Commonwealth Enterprise Architecture Business Strategies?	10
Does the project support the Agency Strategic Direction?	10
Is the proposed technical approach stated?	3
Is the proposed approach based upon proven technology?	7
To what degree does the project benefit chronically underserved stakeholders?	5
Will the project increase public protection, health, education, environment, or safety; improve customer service; or increase citizen access to services?	5
Does the project have a positive return on investment?	5
Does the project support legal or regulatory requirements?	5
What is the project cost risk?	7
What is the project complexity risk?	5
Does the agency present a sound risk management approach?	3
What is the reasonableness of the project cost estimate provided?	5
What percent of the project funding is from non-state funds?	10
What is the project funding risk?	5
What is the overall rating average of all projects listed on the Dashboard for the agency?	4
If the project is listed on the Dashboard, what is the overall rating for the last three months reported?	4
Has the agency established and adequately described their ITIM practices?	<u>2</u>
Total Value	<u>100</u>

Recommendation

The purpose of the project ranking and selection criteria is to place all Commonwealth projects on a level playing field so that the CIO and the Board can consider which projects are most important to achieve the Commonwealth's IT strategic plan. The arbitrary decision to place at least two projects for each Secretary or 30 percent of a Secretary's proposed projects on the Priority Projects report undermines this objective.

We understand that the Board's Project Review Committee is currently re-evaluating the project ranking and selection criteria and has similar concerns about the two projects per Secretary approach. We recommend that the Board improve the ranking process before requesting the agency information to complete the next annual report.

We reviewed the current Priority Projects report and did not find projects listed for certain VITA initiatives such as the replacement of the Commonwealth's administrative systems with an enterprise system. The enterprise system is a current PPEA initiative that can potentially replace the Commonwealth's current accounting, payroll, budget, human resources, fixed assets, and procurement systems with a new enterprise system. Virginia's Comptroller is responsible for many of these systems and also did not submit a project or IT strategic plan requesting their replacement. We discussed this with the PMD who explained that VITA initiatives are different from agency projects and in some instances should not follow the ranking and approval process.

Initiative projects, like any other systems development project, take Commonwealth resources to implement. We believe these projects should undergo the same comparison and ranking against other projects to ensure that the Commonwealth applies its limited resources to the highest priority projects. Also, the current process serves to document whether projects support the Commonwealth's IT strategic plan, fulfills a business need, has a positive return on investment, and sufficient funding sources. Finally, the Code of Virginia does not exempt VITA from the same project management scrutiny and Board ranking that is required of all other agencies.

Recommendation

We recommend that VITA submit all their systems development initiatives through the ranking and project selection process so they can be compared to other Commonwealth IT projects.

To better understand the ranking process we selected and reviewed the Department of Social Services' IT strategic plan and project criteria score for their Integrated Social Services System project request. The Board ranked this project sixteenth in the Commonwealth on the last Priority Projects report. The project has an estimated cost of \$128 million and Social Services expects to undertake this as a PPEA project.

We found that Social Services' IT strategic plan supports their scored value for most areas described in the project ranking and selection criteria above. However, we could not tie back their IT strategic plan to the agency strategic plan that they submitted to Planning and Budget. There appears to be a large disconnect between the two plans because the agency strategic plan does not clearly demonstrate how the Integrated Social Services Systems project would help them improve or achieve business goals. This is a significant criterion (worth 10 of the possible 100 points) and it appears that PMD did not verify the plans when reviewing the agency calculated score.

Recommendation

When the Board receives the draft Priority Projects report from PMD, they expect that PMD has followed their procedures requiring the criteria validation. However, due to staffing shortages and other priorities PMD does not compare the IT and agency strategic plans. As a result, the Priority Projects report may contain project requests that do not relate to the agency's overall strategic plan.

We recommend that PMD review and compare overall agency and IT plans to ensure the system supports or improves a business process.

Once a project appears as a priority project, the agency can request approval from the PMD, CIO, and the Board to begin project planning. To initiate this process the agency submits a project proposal and charter to the PMD. PMD reviews the proposal and charter for inconsistencies, mistakes, miscalculations, and recommends changes. The PMD then creates a project scorecard, which initiates a three-way review.

Two PMD specialists separately review the project and develop scorecards of their assessment. If there are any differences or disagreements between the two scorecards, the PMD Manager or Director clears up the difference and develops the final scorecard. The PMD then presents the project and its scorecard to the Board's Project Review Committee and they might ask for clarifications or set contingencies. Upon the Committee's approval, the PMD prepares a letter of recommendation that contains a decision brief and cost basis analysis and sends it to the CIO for his approval. If the CIO approves the recommendation, he passes the project recommendation electronically to the full Board. The Board members have five days to request further discussion; otherwise, the project receives approval.

To understand and validate the project planning approval process described above, we selected one project, the State Board of Elections' (Elections) Virginia Election and Registration Information System. We reviewed the project charter, project proposal, the PMD recommendation to CIO, and the approval letter. The Board approved this project in September 2004.

Elections estimates the project cost at about \$17 million, with funding from Federal money through the Help America Vote Act of 2002, and expects completion in June 2006. The Act requires a single, uniform, official, centralized, interactive, computerized, statewide voter registration list defined, maintained, and administered at the State level. While Virginia currently has a centralized voter registration system, the system was developed in 1973 and is too old for modifications to meet the requirements of the Act. The new system should meet the Act requirements by automating manual processes, providing identity through the Department of Motor Vehicles system, providing verification of deceased voters through the Social Security Administration's Master Death File, and automating the link to the Health Department's vital statistics records to the extent permitted by the Code of Virginia. In addition, Elections expects the system to have lower system maintenance costs than the current voter registration system, with an estimated operating cost of about \$820,000 over a four-year period.

The project charter is the basic overview that Elections gave to VITA to start the approval process and it sets out the project's business objectives, description, scope, deliverables, authority, organization, roles and responsibilities, resources, signatures of proponents, and management milestones. Elections' project charter had five draft versions with changes to the milestones and other wording changes before a final version was completed. Our review found that PMD questioned a few of the milestones to ensure Elections was going to be able to achieve the timeline that they set out for themselves.

The project proposal indicates the project's description, purpose, strategic justification, estimated project development schedule, financial estimates, risks, and approvals. PMD estimates that the most common area requiring change involves the financial estimates. For Elections, we found that PMD worked

with Elections to more accurately calculate the seven-year return on investment, reducing it from 12.40 percent to 7.86 percent and to improve the cost estimates of this project.

We reviewed VITA's scorecard for this project that was included as part of the letter of recommendation delivered to the CIO. The PMD assigned a "green light" to most criteria on the scorecard but did identify some yellow areas. These areas were enterprise applicability, availability of a commercial off-the-shelf solution, high visibility, and keen stakeholder interest. The Board's Project Review Committee recognized the additional exposure that resulted in the yellow light areas and directed Elections to take specific actions to mitigate the risk through contract specifications and intense oversight.

The Board's Project Review Committee and the CIO both recommended development approval with the contingency that the Secretary of Administration's Oversight Committee review the final vendor contract for the system. The contingency essentially restricts Elections from conducting development without both the CIO and Oversight committee approval of the contract. The full Board subsequently granted Elections developmental approval with no dissent.

Recommendation

We recommend that PMD enhance their guidance and instructions to assist agencies in the financial analysis and cost basis analysis of projects. The PMD has provided a project proposal template for agencies to use, but the template could undergo improvement to provide a definition of the specific financial categories and suggest methods to calculate the estimates. For example, the financial template breaks the cost into hardware, training, software, personnel, but does not provide instructions of the types of items to include in each category and how to best estimate the amounts.

These enhancements would improve the accuracy of agency calculations and reduce the demand on PMD resources to analyze and negotiate better financial information.

Project Management Dashboard

One of the tools that PMD uses to keep track of and evaluate active projects in the Commonwealth is a system called Dashboard. The Dashboard went live in 2001 and is accessible on VITA's website with a public view that gives project background and status information from the preceding quarter.

Dashboard's design should provide agencies, secretaries, the CIO, and oversight committees with a succinct and timely assessment of all major information technology projects. The status reports should provide decision-makers with the progress of ongoing projects using visual indicators and links to detailed information. To facilitate the Dashboard, the PMD requires project managers to update Dashboard information by the sixth day of every month and Secretaries to review and approve the progress by the 12th day of the month.

We reviewed the quality and timeliness of information for projects currently in the Dashboard. In addition, we selected known active projects and compared information from other sources with the information in the Dashboard. For projects in the Dashboard, we generally found untimely updates and approvals, and in many cases where several months passed with no update. We also found several active, major IT projects not in the Dashboard.

VITA has made a budget request to fund the purchase of an enterprise system known as the Portfolio, that all project managers will use to control and monitor their projects. Currently, project managers use a variety of off-the-shelf products to help them manage their projects. The most common is Microsoft Project, which organizes and tracks tasks and resources, evaluates the impact of changes, tracks project performance,

generates project reports, and allows for project plan sharing. Since the Dashboard does not interface with MS-Project, project managers must input the information in each system. The Portfolio will allow agencies to continue to use MS-Project and will provide for the interface. The PMD envisions that with funding for the Portfolio, it will provide real-time information to the PMD, the CIO, and the Board regarding the status of major IT projects without requiring duplicate keying.

Recommendation

The current Dashboard system does not contain accurate and timely information so it is not useful to the PMD, the CIO, or the Board. The Dashboard or any other status reporting tool is only as reliable and useful as the information users input. Out-of-date information makes Dashboard information futile and obsolete for the Board, the CIO, and PMD that uses it to make decisions regarding projects.

Dashboard does not interface with systems used daily by project managers to monitor and control their projects, and the PMD does not enforce their policy requiring monthly Dashboard updates. Even if the policy was enforced, Dashboard's duplicate data entry is inefficient, and since it is only a snapshot in time, it becomes outdated quickly.

We recommend the funding of the Portfolio enterprise solution requested by the PMD. This system allows the users to continue to use the MS Project application while providing status information to the PMD without any additional effort. This will facilitate real-time monitoring of projects by the PMD, the CIO, and the Board.

Objective 2: Determine that automated systems support VITA's business processes and have adequate internal controls to protect the assets of the Commonwealth.

Financially, VITA operates as a business, which bills agencies that use their services to pay for the cost of VITA's operation. Rate setting and cost control within VITA are essential, as they must balance the strategic vision of the Commonwealth with agencies' ability to pay for VITA services and cover VITA's operational expenses.

VITA's rate structure methodology has evolved since its creation. Initially, VITA sought and received approval from JLARC for rates carried over from the services managed by the former Department of Information Technology. This solution addressed those ongoing services, such as telecommunications, provided by the old and new departments.

In the fall of 2003, VITA developed rates based upon a fully transformed organization that would recover the costs associated with bringing all VITA customers to specified levels of support for new services to include maintenance, licensing, help desk, security, and equipment replacement services. JLARC conditionally approved these rates in December 2003. Once published, agencies began a comparison of their existing and projected IT expenditures based on these rates and realized these rates would result in increased costs beyond their ability to pay.

In February 2004, the Board hired Lem Stewart as the Commonwealth's CIO. Mr. Stewart brought new direction to the implementation of VITA, focusing VITA's efforts solely on transitioning activities over the coming year. Transitioning is the transfer of IT personnel to VITA's payroll, the inventory and transfer of assets from agency ownership to VITA ownership, and the procurement and payment of all IT assets through VITA. Therefore, in Spring 2004, VITA changed its rate structure methodology to an administrative fee approach.

Under this methodology, known as Direct Bill, agencies only pay for goods and services they request and VITA bills the agencies for those actual costs, plus an administrative fee of 5.52 percent. VITA based the fee on the cost to make integration happen, primarily hiring additional administrative and managerial personnel to address the distributed sites' ongoing needs and to begin long range planning efforts. To accommodate the direct billing process, VITA developed a Direct Bill system.

Direct Bill System

VITA began the first Direct Billings in August 2004 with the first bills covering the month of July 2004 after JLARC approved the administrative fee. The two components of Direct Billing are payroll costs and IT goods and services purchased by VITA on an agency's behalf. As VITA makes purchases and processes payrolls, their PeopleSoft accounting system captures these costs by agency. Each month the Direct Billing system electronically extracts cost information by agency from PeopleSoft and adds on the 5.52 percent administrative fee. The bill is then available on VITA's website and agencies receive an e-mail indicating that the bill is ready and needs to be paid.

The payroll costs that VITA bills to agencies are the actual salary and benefit expenses of VITA staff working at the agencies. Under the "same faces, same places" philosophy, these are the same IT employees that worked for the agency before they transitioned.

The IT goods and services costs are those that the agency has requested VITA to purchase on their behalf. Agencies notify VITA to make a purchase by placing an order into the Commonwealth's procurement system, eVA, and instruct the vendor to send the bill to VITA and ship the goods to them. When VITA receives the vendor's bill, they check eVA to make sure the agency has received the goods before they pay it.

We met with VITA before they implemented the eVA order procedures and discussed potential concerns. First, eVA's functionality will not allow VITA to pay for agency-initiated orders using VITA's purchase charge card, reducing agency overhead. Second, agencies must remember to use a special V code to identify the VITA purchase and manually add "ship to agency, bill to VITA" information on the order. Third, vendors are accustomed to working with agencies and may automatically charge their purchase charge card or send the bill to the agencies out of habit. Finally, procurement officers must exercise judgment to identify VITA and agency purchases. Although these concerns existed, VITA believed that eVA represented the best alternative to procure assets.

We recently met again with VITA's accounting staff to discuss how the eVA order process was working. The staff explained that after the first couple of months of using the Direct Bill system, they realized that there was a large list of discrepancies in bills under the new system. Further investigation revealed about nine hundred discrepancies on bills that had incorrect billing addresses. The main problem is that eVA does not default the billing address to VITA when agencies use the special V code and some agencies did not manually add the "bill to VITA" information. In turn, the vendors sent the bills to the agencies, which paid them, and most likely did not tag the equipment as belonging to VITA.

VITA decided not to calculate the underpaid administrative fee that resulted from the eVA "bill to" issue and request that agencies pay it. Instead, they have chosen to focus their efforts on working with the Department of General Services to correct eVA functionality issues and have scheduled meetings on the issues. We encourage VITA to continue their efforts to work with General Services to resolve functionality issues that impact VITA's operations. Some of VITA's concerns include the following.

- eVA has limited reporting capabilities and VITA needs reports to identify agency equipment purchases not going through VITA for approval and payment. Without appropriate reporting, VITA cannot determine compliance with policy and procedures.
- eVA will not allow agencies to order equipment and VITA to pay using their purchase charge card. This results in increased invoice processing costs and causes VITA to be out of compliance with statewide purchase charge card usage targets.
- eVA's search for small, women, or minority-owned (SWAM) vendors often yields no match because often SWAM vendors do not have catalogs established in eVA. DGS should work with SWAM vendors to establish catalogs so that agencies increase their SWAM use.
- VITA receives requisitions from existing statewide contracts but often there is no contract number listed in the contract field. Without a contract number in appropriate field, VITA is unable to track actual procurement amounts made under a contract.
- Currently, eVA is the one common system available throughout the Commonwealth that covers all parts of the requisition process. General Services has expanded the use of the system to include receiving, but VITA still needs asset capture and management capabilities. General Services continues to invest in making eVA do more, modifying the e-procurement system to look more like an integrated financial system. This approach is a costly, incomplete solution and an enterprise financial system is a better solution.

Physical IT Asset Inventory System

As part of the transition, agencies must transfer ownership of their IT assets, such as desktop computers, servers, mainframes, routers, and other hardware to VITA. Some agencies maintained the assets in their agency-owned inventory system and others used the Commonwealth's fixed asset system. In any case, all agencies must transfer the assets from their ownership and record the assets in VITA's Physical IT Asset Inventory System.

VITA maintains a web-based Inventory system which all agencies can access to record IT hardware and software asset information that transition to VITA. In addition, VITA staff located throughout the Commonwealth can access the system to update asset information such as acquisitions, disposals, and transfers.

The Inventory system consists of three separate areas; the upload, staging, and production areas. These areas allow agencies to:

- Add assets via spreadsheets or comma delimited files in the upload area;
- View and update asset data within the staging area;
- Move asset data into the production system once data has been finalized; and,
- View and update asset data with in the production area

The chart below shows some of the data elements contained in the Inventory system:

<u>Asset Attributes:</u>	Asset category, equipment type, serial number, manufacturer, model number, operating system name, VITA tag number, agency tag number, seat managed, asset in service, and asset in good working order.
<u>Purchase Attributes:</u>	Purchase month, purchase year, purchase cost, asset owned, operating lease start and end date, annual operating lease cost, owned asset lease start and end date, federally funded asset, and annual hardware maintenance cost and renewal date.
<u>Location Attributes:</u>	District name, building name, street name, city, state, zip code, and comments for additional specific location descriptions.

Authorized users can upload data into the system using Excel or comma delimited files as long as they follow a file layout specified by VITA. After uploading the file, it populates the system's staging area, which is a temporary holding area where the agency can continue to revise the data. The staging area also allows agencies to individually add assets rather than use the mass upload screen.

Once the staging data is complete and accurate, the user moves the data into the system's production area, which contains all physical IT assets. Once in the production area, users still maintain the ability to update and insert additional assets individually; however, users are prohibited from making future uploads using Excel spreadsheets or comma delimited files because this action will overwrite existing production data. This system issue presents a problem for the large agencies that have a significant amount of asset activity and VITA expects a system modification to correct this problem very soon.

The Inventory system is a static system with little functionality other than to capture asset information for tracking and accounting. It has limited filtering capability, which would allow a user to search for a specific asset based on attribute criteria, and users cannot print directly from the system. Ideally, the system should integrate with other VITA systems such as the Customer Care system (Help desk) and VITA's billing system. This type of integration would reduce duplicate data and allow VITA's Customer Care to track problem assets and recommend their replacement. In the future, as VITA returns to a rate structure for each asset used, the integration of this system to a billing system would aid in generating the monthly bills based on the location and type of asset.

We visited several agencies to verify the existence of assets in the Inventory system and found that all of them maintained duplicate records in their agency-owned inventory system, although not required to by VITA. Agencies believe their own systems provide more functionality than VITA's and allows them to locate and manage assets faster and easier.

In addition, agencies stated that VITA has issued very few Inventory procedures, and have concerns VITA will create a new Inventory system and expect them to populate it rather than transferring data from the current Inventory system. As a result, agencies do not feel comfortable removing the assets from their system and relying solely on VITA's system to maintain their records, even though after transition, VITA owns the IT assets. Several agencies were uncertain whether they should continue to use agency tags or whether VITA would specify new tagging procedures. They were also frustrated with VITA's failure to specify asset transfer procedures before transition and coordinate an inventory process.

We discussed these concerns with VITA staff who explained that they believed agencies would simply identify and transfer data out of their existing inventory system and did not require agencies to perform physical inventory verifications of their IT assets. VITA provided us access to their extranet where

we found some Inventory policies and procedures, but the extranet is generally only available to VITA employees. As a result, agency fiscal staff that traditionally accounted for these assets may not be aware of VITA's procedures and this may have led to confusion.

Recommendation

We recommend that VITA place their asset management policies and procedures in an easy to find location on their web page. Although the procedures are only applicable to their staff, it would improve communication to agencies and help them understand that they are no longer responsible for tagging, tracking, and accounting for VITA assets after transition.

We reviewed VITA's new asset acquisition policy issued in July 2004 that instructed VITA employees on handling new asset purchases. It makes the VITA Service Level Directors responsible for tagging and adding new assets to the Inventory system, but we believe agencies have not received the policy since it is on VITA's extranet. We met with VITA's Controller who said that only a few Service Level Directors have requested tags which leads us to believe that they also may not be aware of their responsibility for assets.

VITA has drafted detailed IT asset tagging procedures but has not issued them to date. Before drafting the procedures, VITA discussed tagging with the APA to brainstorm other alternatives. We reminded VITA that the assets are theirs, and we believe they need an accurate inventory for control and financial purposes. We also believe an accurate inventory is necessary in the future as VITA establishes rates in lieu of the current administrative fee and as they consider future PPEA decisions. We also expressed that there is a high probability of agencies using the same tag numbers, which will result in duplicate tag numbers for different assets in VITA's Inventory system. VITA concluded that re-tagging is preferred.

Since completing transition, VITA's staff are responsible for implementing VITA's tagging procedures. VITA must ensure agencies also receive the policies, are aware that they are not responsible for tagging, and VITA's Service Level Directors will coordinate the process. Effective communication should reduce agency frustration.

We believe that VITA should have developed their tagging and inventory procedures before beginning agency transition, much like they considered the personnel transfer process. Communicating established and detailed procedures to agency staff would have improved agency confidence in the system and minimized their current duplicate effort and confusion.

Recommendation

The current Inventory system is far from being a comprehensive system that can support multiple functions within VITA such as billing and the help desk. However, it is the best system VITA currently has to control assets and to develop future rates. Therefore, it is important the system's data be accurate, current, and complete. There are several things VITA can do to improve the current system.

First, the system's functional capabilities are insufficient and do not meet the basic needs of users. It has limited filter and search capabilities that should be improved to make assets easier to locate and should allow printing within the system. It also cannot handle mass updates of information but only allows changes to one asset at a time, a feature that is especially important if you need to delete, add, or transfer a group of assets. We recommend that VITA continue their current efforts to improve the Inventory system functionality.

Second, the system does not integrate with other systems such as VITA's Customer Care system (Help desk), which could track asset repairs so problematic assets could be identified and replaced. In the future,

the system could also integrate with VITA's billing system so that VITA will know what assets are located at agencies and appropriately charge them for the equipment use. The possibility of the Inventory system integrating with other systems provides VITA with a powerful resource to manage the Commonwealth's infrastructure without creating duplicate data. We recommend that VITA explore opportunities to integrate these systems as VITA transforms and that they do not invest significant resources improving the current Inventory system if it is going to be replaced with a comprehensive, integrated system in the near future.

Third, VITA has put forward some general guidelines about their Inventory system but placed them on their extranet, which only VITA employees can view. This has resulted in miscommunication and agency frustration since they cannot locate VITA's procedures and assume they have issued none. In the future VITA must be forward-thinking when establishing new systems and ensure they develop detailed procedures early, considering how they will implement the procedures and anticipate what problems might arise.

Objective 3:	Determine that Security Services has established an understanding with transitioned agencies regarding their roles and responsibilities related to security and compliance with VITA standards.
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Agencies have been transitioning into VITA since January 1, 2004, and at the December 2004 Board meeting, the CIO announced the completion of the transition effort. The first wave consisted of small agencies with fewer than 100 staff, followed by medium and then large agencies. A formal transition overview document marks an agency's official transition and it contains primarily boiler-plate language. By signing the document, agencies agree to transfer operational control to VITA along with associated agency IT personnel and IT assets.

We reviewed transition documents and found that none discuss agency and VITA security roles and responsibilities upon transition. This is significant because before VITA, agencies were responsible for all aspects of security, including the resources (personnel and assets) that they used to implement security. With the transition to VITA, it is important for agencies to understand what their security responsibilities are and how VITA will fulfill the agencies' needs. Without a clear delineation of roles and responsibilities, it is easy for parties to make assumptions that each other is performing an important function.

Security Governance

Security governance is the policies, standards, and guidelines that VITA issues to communicate Commonwealth expectations. The former Department of Technology Planning, which is now part of VITA, developed the Commonwealth's current security governance, and VITA has adopted this structure until it issues revised policies, standards, and guidelines.

We met with VITA's Chief Security Officer who explained that they are operating under a "same faces, same places" philosophy so agencies should expect security roles to remain unchanged until transition is complete. Basically, agencies should continue to be responsible for security since VITA is operating under the agencies policies and using their former staff. Even though this is consistent with current Commonwealth policy, we are concerned that unless VITA clearly states this expectation in the transition document, agencies may have a different understanding.

We arranged one-on-one meetings with four agency representatives and asked about their role and responsibility related to security. Two agencies agreed with VITA's understanding and said that they continue to have responsibility for security during the transition. One agency agreed that they are still responsible but qualified it by saying that although they signed a transition document, they still administered their own systems internally with their own staff and felt no change operationally. Finally, one agency said

that since they no longer own the hardware or had the technical expertise on staff, VITA has responsibility for security. A recent meeting between agencies and VITA's Security Director indicate that many agencies share the latter agency's understanding as well.

We met with VITA's Security Director to discuss plans to define roles and responsibilities as transition ends and VITA transformation begins. The Security Director explained that VITA has developed a Security Advisory Group consisting of agency representatives to review, develop, and update security policies and procedures. These policies and procedures will provide an updated statewide security governance structure and VITA expects that the agency heads will still have responsibility for security since they own the applications and data that needs protection. We have attended the Security Advisory Group meetings, which began in December 2004, and roles and responsibilities continue as an area of discussion.

We are concerned that VITA cannot ignore their security roles and responsibilities since they will make infrastructure and architecture decisions and have responsibility for on-site staff that administer VITA's hardware. The Security Director agreed that VITA will need to consider their responsibilities in complying with the governance structure, but that this will occur during VITA's transformation. The Director of Strategic Management Services added that an infrastructure PPEA is in the detailed proposal stage and that VITA would probably wait to see its outcome sometime in July before investing resources to address VITA's infrastructure security procedures.

Recommendation

We recommend that VITA's security governance (i.e. policies, standards, and guidelines) acknowledge their responsibility to work with agencies to provide security that meets their needs and requirements. Currently, many agencies are continuing to accept responsibility, but we are concerned that this attitude may change as VITA enters transformation and begins to make changes to architectures that benefit the Commonwealth but that affect agencies. As the architecture changes, hardware is replaced, moved, or consolidated, and staff are shifted, agencies will feel more uncomfortable accepting responsibility for the security of an environment that is unrecognizable to them.

We recommend that VITA educate their staff regarding their IT governance responsibilities. VITA should make themselves an active participant in the agencies security planning and provide advice and recommendations to improve agency security. The former Department of Information Technology had a reputation of only providing recommendations if agencies specifically requested it. VITA cannot succeed if it continues this attitude, particularly since agencies surrendered their equipment and staff expertise to VITA.

Security Operations

We contacted VITA's Customer Services Director to discuss how VITA will implement the operational aspects of security to adhere to the governance structure. We asked whether management had instructed VITA staff in the preferred security settings and practices that they should follow. The Director explained that when VITA was operating under the service rate model he had formed a team to develop standard security procedures for VITA staff to follow. At that time, the service rate would encompass the cost of a fully transformed VITA and include a host of services, including full security services. With the adoption of the administrative fee as a temporary alternative, VITA dropped the fully transformed services.

The Customer Services Director explained that while momentum has slowed to develop fully transitioned security procedures, VITA has not ignored security altogether and has issued some security procedures and continues to develop more. For example, VITA has implemented a password usage policy and VITA staff must implement the policy at their assigned agencies. The policy addresses password requirements for network logins and for other VITA equipment that requires passwords. The creation and

enforcement of this procedure allows for a consistent practice across the Commonwealth and makes eventual transformation easier. VITA has also issued a procedure to administer publicly accessible servers and created technical compliance requirements checklists. The checklists provide VITA's minimum security requirements, such as the configuration standards for firewalls and servers. VITA has disseminated these documents to their staff that work at the transitioned agencies.

VITA has also worked with the small agencies to improve their security by installing security software where needed, configuring their systems according to the checklists, and administering their firewalls and routers. The same degree of change was not required at the medium and large agencies since they generally had good security practices.

Recommendation

The Customer Services Director should continue to set security procedures for specific equipment they operate throughout the Commonwealth. This procedure would ensure VITA's architecture meets defined minimum security standards and provides consistency. The procedures should allow for exceptions, if they are justified, documented, and the agency understands the vulnerability associated with the exception and is accepting the risk.

Configuration standards will allow VITA to eventually transform the architecture with greater ease because equipment will already be operating similarly across the Commonwealth. It will also facilitate the shift of staff between agencies since they will have similar operating expectations.

Recommendation

VITA's security governance and security operations do not share a common understanding of VITA's security responsibilities. We recommend that the Security Director and Customer Services Director work together so that governance develops policies in line with the common vision and operations establishes their procedures to support the vision.

Objective 4:	Determine that Security Services complies with their statutory responsibility to perform database security audits. Determine that they have made progress in identifying databases that are at greatest risk and developed an adequate audit schedule based on their knowledge of those risks.
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The Code of Virginia gives the CIO responsibility to designate a government entity to oversee, plan, and coordinate the conduct of periodic security audits of databases and communications for all executive branch agencies and institutions of higher education. VITA's Strategic Management Services group had previously administered this program and with the hiring of a Security Director in 2004 the program's responsibility has shifted to him.

Upon passage of the original legislation, the Auditor of Public Accounts contacted the Department of Information Technology staff, now part of VITA, who had responsibility for database security reviews. The Auditor of Public Accounts explained that our audits typically include reviewing IT controls, and we offered to work collaboratively with VITA to avoid duplicate effort. We shared the process we use to identify areas of risk, shared our annual audit plan so VITA would know where we intended to audit, and provided VITA with our audit results. VITA used this solution to provide a written report that summarized our audit findings.

Over the past three years, VITA has continued to use our audits as the only source for meeting the requirements of the Code of Virginia. They have not established a program and do not have the staff and funding to perform the reviews. We have met with VITA staff regularly to discuss the program and have offered suggestions to help them begin to develop their own program. VITA hired a Security Director in 2004 to establish the security audit program and oversee security governance. Since there was no existing security office, he has focused primarily on hiring staff and revising the Commonwealth's security policies and standards.

Recommendation

VITA staff have had responsibility for security audits for three years, yet the program continues to rely on the Auditor of Public Accounts' risk assessment and audit work rather than an independent risk assessment. Also, the Security Director has made little to no progress developing the program since he was hired. In meetings with the VITA staff, they appear uncertain how to begin identifying the critical databases, the equipment used, how to assess risk, and how to approach auditing them.

While we will continue to share our work, the Security Director must establish a team to work on developing the security audit program. VITA needs to independently identify critical databases, assess risk, and identify where audit work is necessary. Then, the Auditor of Public Accounts and internal auditors can work with the team to compare workplans and identify opportunities to eliminate repetition. Our concern is that the Auditor of Public Accounts' risk model may not identify databases that concern VITA or the agencies, and therefore, the database security is not adequately audited.

Since all agencies have transitioned to VITA, VITA is now the owner of the assets that protect the Commonwealth's databases and provide data communications. While agencies still own and manage the databases, VITA manages the hardware on which they reside. Agencies will control who has access to the database systems through the management of user ID's and passwords, but VITA will control the hardware and will set hardware security features, such as firewalls, that will also protect the databases. VITA's role in security operations places them in a unique situation; whereby, they have internal technical experts who can assist in assessing risk and performing the database security audit work.

Recommendation

We recommend that the Security Director work with the Customer Services Director to use employees in the Customer Services Directorate to assist in performing the technical database security audits. Hiring experts would be an expensive option, and VITA already has technical experts working in operations. These employees work on-site at agencies and could assist in determining critical databases and communications and the related components and their risks. Also, these employees already possess technical expertise to manage equipment such as servers, firewalls, and routers and operate under VITA's security standards which represent best practices. They could audit the equipment managed by other VITA technicians, and this would present a good cross-training opportunity.

Objective 5: Determine VITA's methodology for identifying, calculating and reporting savings.
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The legislation that created VITA also established the Technology Infrastructure Fund and allows VITA to transfer savings to the Fund to use on future technology initiatives that the Board approves. The Auditor of Public Accounts must certify the savings before any transfer can occur. In 2004, the Board approved agencies to retain any savings, up to the amount of VITA administrative fees they have paid. Only excess savings would be subject to transfer from the agencies into the Fund.

We have been working with VITA staff as they develop a savings identification and documentation process. In fiscal year 2004, VITA's Chief Financial Officer (CFO) outlined a proposal and received both Planning and Budget and the Secretary of Finance's initial approval. The CFO then established a small committee to develop a detailed process to quantify baseline costs for any initiative, which would serve to support the savings calculations and certifications.

The committee has developed a baseline cost template that agencies will complete for any new initiative. However, agencies may view the template as cumbersome since they must complete it each time VITA considers an initiative, and it may prove difficult to complete if their system does not capture expense information at the level of detail required. Also, as agencies have transitioned and now pay for equipment under the Direct Bill process, they do not record detailed expense information required to complete the template. Instead, VITA pays the bills and captures the data in their accounting system; therefore, VITA may need to complete the cost template in the future.

The committee discussed that some initiatives may not result in cash savings and, therefore, there is nothing to transfer to the Fund. In this case, there is no need to have the savings certified, and it does not require the same level of confidence. To help identify initiatives that may require certification, the committee classified VITA initiatives as savings, cost avoidance measures, or productivity gains, as defined below:

Savings

These initiatives result in cash savings to Commonwealth agencies. VITA can quantify these savings and agencies may be required to transfer these savings to the Fund.

Cost avoidance

These initiatives reduce costs to agencies; however, VITA does not expect the agency to transfer these savings to the Fund.

Productivity gains

These initiatives improve Commonwealth IT operations and services.

The committee also discussed that some savings have a lifespan and that VITA should limit the timeframe for which they claim savings, cost avoidance, or productivity gains. Additionally there are some savings initiatives, such as the Virginia Partners in Procurement, where agencies keep the savings so they are unavailable to the Fund. All of these issues demonstrate some of the challenges VITA faces in calculating savings. Even at the end of this process, there is no guarantee that Planning and Budget will actually transfer money to the Fund.

The CIO has developed the chart below to communicate VITA's initiatives and their related savings. We have not certified any of these savings nor has VITA requested a transfer of any of the amounts to the Fund. The CIO is using this chart to present to the Board and others both the savings and cost avoidance amounts.

VITA Integration Cost Savings and Avoidance Report*

Initiative	FY 04 Savings	FY05 Savings	FY06 Savings	Six-Year Baseline Benefit
Voice and data telecommunications contract extension (ATM T-1 Circuits)	\$ 528,000	\$ 528,000	\$ 528,000	\$ 3,168,000
Conversion of Unix and Oracle contractors to full-time positions	132,000	132,000	132,000	792,000
Efficient tape technology stacking and replacement	173,000	108,000	108,000	648,000
Telecommunications MCI contract (COVANET)	1,542,000	3,085,000	3,085,000	18,510,000
Verizon contract renegotiation	-	4,675,000	5,861,000	33,980,000
Streamline 1-800 voice services	2,000	103,000	103,000	618,000
Streamline cellular usage	524,000	1,333,000	1,333,000	7,998,000
SAG software contract renegotiation	8,000	32,000	32,000	192,000
Sun server procurement	484,000	-	-	-
Virginia Partners in Procurement – Hardware and Software (Wave I)	12,098,000	14,576,000	14,576,000	87,456,000
Virginia Partners in Procurement – Computer Peripherals and Enterprise Storage (Wave II)	174,000	558,000	558,000	3,348,000
DGS Small Server Consolidation	-	34,000	41,000	239,000
Subtotal, Savings	15,665,000	25,164,000	26,357,000	156,949,000
Initiative	FY 04 Cost Avoidance	FY05 Cost Avoidance	FY06 Cost Avoidance	Six-Year Baseline Benefit
Software Licenses	495,000	615,000	615,000	3,690,000
Server Acquisitions	380,000	380,000	-	380,000
DGS Small Server Consolidation	-	395,000	-	395,000
Subtotal, Cost Avoidance	875,000	1,390,000	615,000	4,465,000
Total, Savings & Cost Avoidance	\$16,540,000	\$ 26,554,000	\$ 26,972,000	\$ 161,414,000

* As of December 2004 as calculated by VITA

While the chart does satisfy the purpose of communicating VITA's initiatives and expected positive outcomes, it does not represent cash that will be available to transfer to the Fund. We estimate the actual amount is likely to be much less. In the chart below we have estimated the fiscal year 2005 savings that VITA would provide to Planning and Budget for further analysis and eventual transfer to the Fund.

Fiscal Year 2005 Baseline Savings in chart above:	\$25.1 million
Less:	
In December 2002, before VITA, the Department of General Services contracted with Silver Oaks for procurement and spend analysis. Under the Virginia Partners in Procurement program Silver Oaks examined several commodities to include technology equipment and developed baseline spending. They used this information to negotiate lower prices with the top vendors. The savings shown in this chart are not available for transfer to the Fund because agencies were promised the savings to offset earlier budget reductions.	(15.1) million
Planning and Budget has already transferred some savings from agency appropriations to balance the general fund. These savings were taken from the voice and data telecommunications contract (ATM), COVANET, and cellular usage savings initiatives.	(2.9) million
The Board approved agencies to retain savings up to the actual VITA administrative fee they pay. VITA projected these savings based on the agency on-boarding schedule but the actual amount will vary.	(5.3) million
Estimated Fiscal Year 2005 savings that may potentially be certified and sent to Planning and Budget.	1.8 million

The estimated Fiscal Year 2005 savings of \$1.8 million above includes savings from all fund sources including federal and non-federal funds. Federal regulations restrict the use of Federal funds and VITA's ability to transfer savings from Federal funds to the Technology Fund is questionable. Conservatively, we expect VITA will need to return Federal fund savings to the Federal government or agencies will need to use the funding to support federal program expenses. Planning and Budget would provide additional analysis of the amount received by VITA and calculate the amount that they will actually transfer to the Fund. Their analysis would identify amounts that are ineligible for transfer such as locality savings, fund restrictions, and agreements with higher education institutions. These amounts are currently included in the \$1.8 million estimate above; therefore, the actual transfer amount may be significantly less after deducting the ineligible transfer amounts.

We met with the CIO to discuss the Technology Fund and he stated that the current model for transferring savings to the Fund may not be the best way to pay for VITA initiatives. The Fund concept eliminates Federal participation in the investment effort since VITA cannot transfer Federal dollars directly to the Fund. Further, it threatens the amount of future Federal funding to agencies as the Federal government may cut agency funding to take advantage of VITA generated savings. The CIO has been working with the Governor and legislature to discuss the Fund concept and he is considering alternative models to pay for VITA initiatives while maximizing State and Federal participation.

Recommendation

As the CIO has worked to meet the statutory requirements for creating the Fund and savings methodology, he has identified flaws. We recommend that the CIO continue to analyze alternative models to provide technology investment funding in the Commonwealth while maximizing both State and Federal participation and propose the alternative models to the Board for consideration.

Until there is an alternative method, we recommend that the CFO continue his efforts to develop a savings methodology and receive the Secretary of Finance and Planning and Budget's approval. Additionally, while the current savings chart satisfies a need, we recommend that the CIO also report estimated savings that may be subject to transfer to the Technology Fund under the current model to provide perspective for the Board.

Objective 6: Determine whether VITA has taken adequate corrective action related to findings reported in prior year's audit.
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In response to our prior audit report VITA prepared a corrective action plan that outlined their planned action and target date. Throughout the year, they have presented the plan at Finance Committee and Board meetings to provide a status update and the chart at Appendix A represents their October 2004 updated plan. We used VITA's plan to evaluate whether each finding is fully resolved, partially resolved, or not resolved as indicated in the column "APA Status." For any finding that is partially or not resolved, we have also added an APA follow-up column that indicates what remains at issue. See Appendix A for the detailed chart.

Follow-up On Prior Findings

APPENDIX A

✓ - complete

○ - partially complete

✗ - incomplete

Ref	Summary	Completion Due	VITA Status	Task/Comments	APA Status	APA Follow-up
1	Policy Matter Expectations	—	Complete	The ITIB established the CIO Evaluation Committee at its February 4, 2004 meeting to address this issue.	✓	
	Committee Information and Reporting, and Meeting Agenda Development	July 7, 2004	Complete	Information on the best practices of boards and version of ITIB Bylaws revised to reflect Appropriation Act language both provided to Mary Guy Miller, as per Board discussion of governance issues at its June 1 planning session.	✓	
2	Address APA report findings	—	Complete	The ITIB Finance Committee, at its January 29, 2004, meeting, directed VITA management to address findings.	✓	
	Summary of performance compared to business plan, and development of cycle for business plan update	Quarterly	Complete	The VITA Business Plan was approved by the ITIB on April 7 2004 with modifications. The Plan has been posted to the VITA Web site and will be printed in limited quantities and distributed to the General Assembly and Governor's Office. Updates to the Plan will be included in the VITA Quarterly Report.	✓	
	Consolidation acceleration	—	Complete	The CIO, in consultation with Board members, made the decision not to accelerate any large agency prior to July 1, 2004.	✓	
	Long-term goals and objectives	Delayed pending Board direction	Complete	The Board discussed long-goals and objectives at its June 1 planning retreat.	○	The Board has not specified any long-term goals and objectives. See repeat of issue in section of report titled, "IT Strategic Planning."
3	Complete business plan for new services	March 31	Complete	The VITA Business Plan was approved by the ITIB on April 7, 2004 with modifications. The Plan has been posted to the VITA Web site and will be printed in limited quantities and distributed to the General Assembly and Governor's Office. Updates to the Plan will be included in the VITA Quarterly Report.	✓	

Follow-up On Prior Findings

APPENDIX A

✓ - complete

○ - partially complete

✗ - incomplete

Ref	Summary	Completion Due	VITA Status	Task/Comments	APA Status	APA Follow-up
4	Development of billing system	June 30 Project scope expanded to allow for online billing earlier than planned	Complete	The Online Billing System went live in August 2004 for the July 2004 bill.	✓	
5	Restore current budget system to operating condition	February 27	Complete	Budget system has been restored to full operation.	✓	
	Develop new budget system that interfaces with other applications including asset management and payroll	June 30	Complete	The revised system requirements and the scripts to review PeopleSoft and other off-the-shelf budget applications have been completed. The legacy system has been used to develop the FY05 budget. VITA is exploring the benefits of procuring an enterprise-wide budgeting module that can be used by VDOT and other agencies that have a budgeting system requirement. A scan of other agencies with PeopleSoft applications is being conducted with decisions on viability to be made within the next 45 days.	○	VITA has decided to replace their Budget system with PeopleSoft's budget and business planning modules in Spring 2005. We recommend that VITA continue their efforts to implement this comprehensive budget system.
6	Development of criteria and process for reviewing and considering PPEA proposals	April 7	Complete	Criteria and process were presented to the ITIB on April 7, 2004, and subsequently revised to reflect Board feedback. The schedule for outlying activities will continue to be refined as the process proceeds.	✓	
	Development of methodology to calculate savings; Board review and approval	July 6	Complete	Savings methodology was presented to the Finance Committee for its review at its March meeting with recommendations to the ITIB at its April meeting. The methodology was approved by the ITIB on April 7, 2004. The CIO requested approval from the Secretary of Finance on April 15, 2004, who approved the concept on July 6, 2004.	○	VITA continues work to develop a savings methodology. The have received initial approval from Planning and Budget and the Secretary of Finance and we encourage them to complete the detailed process.

Follow-up On Prior Findings

APPENDIX A

✓ - complete

○ - partially complete

✗ - incomplete

Ref	Summary	Completion Due	VITA Status	Task/Comments	APA Status	APA Follow-up
7	Hiring of Audit Director	60 days from job posting	Active	ITIB Finance Committee is discussing the proposed charter for the audit function at its October 4, 2004 meeting.	○	The Board is currently interviewing candidates for the position. We recommend they finalize this decision timely.
8	Development of process to review and correct due diligence data by March 31, 2004	June 30	Complete	The VITA IT Asset Inventory System (web-based input to excel spreadsheets) is currently being used by small and medium agencies and VDOT to review and update due diligence data. This tool will remain the “front line” on inventory updates until the team can investigate ways for VITA employees to update the Peoplesoft Asset Management module. Access was given to Auditor of Public Accounts staff for review and comment on May 3, 2004. Remaining large agency spreadsheets will be ready by April 14, 2004 with access to the Web tool in August 2004.	○	VITA’s IT Asset Inventory System is available but it lacks functionality needed to make it easy to maintain and update. Small agencies have not yet added their assets and some large agencies have not loaded final asset items due to system functionality issues. Further, VITA has not issued some asset management guidance and the guidance they have issued is difficult for users to locate. See recommendations in report section titled “Physical IT Asset Inventory System.”
9	Revise profit and loss statements and related financial status	March 15	Complete	Based upon the revised billing approach instituted by the CIO, supporting financial information has been developed to include profit and loss statements, balance sheets and cash flow analyses. This information has been provided to the Finance Committee and will be updated on a quarterly basis.	✓	

Follow-up On Prior Findings

APPENDIX A

✓ - complete

○ - partially complete

✗ - incomplete

Ref	Summary	Completion Due	VITA Status	Task/Comments	APA Status	APA Follow-up
10	Board should direct VITA to obtain accurate & reliable financial information	—	Complete	Baseline cost information is a component of the PPEA due diligence process.	✓	
11	VITA should develop methodologies & gain approval from the Board and the Secretary of Finance	July 6	Complete	Savings methodology was presented to the Finance Committee for its review at its March meeting with recommendations to the ITIB at its April meeting. The methodology was approved by the ITIB on April 7. The CIO requested approval from the Secretary of Finance on April 15 th who approved the concept on July 6, 2004.	○	VITA has received initial approval from the Secretary of Finance and Planning and Budget regarding the savings methodology. However, VITA continues to develop a detailed methodology. We recommend they continue these efforts. See report section titled "Savings Methodology."
12	Board should reevaluate no reduction in force policy	Delayed pending Board direction.	On hold	The Board acknowledged staffing as a topic for further discussion and decision at its June 1 planning session.	○	We recommend that the Board re-evaluate this policy as part of VITA's transformation process.
	Board should direct VITA to absorb only needed staff & to identify staff reductions, working with DHRM to identify alternatives to layoffs	August 29, 2004	Complete	The <i>Integration</i> staffing plan is complete and is being carried out.	✓	
		Delayed pending Board direction.	On hold	The Board acknowledged transformation staffing as a topic for further discussion and decision at its June 1 planning session.	○	We recommend that the Board re-evaluate this policy as part of VITA's transformation process.
	VITA should develop and report overhead to the Board	March 15	Complete	Information on the proposed overhead rate was presented to the Finance Committee at its March 2004 meeting.	○	While VITA did present administrative fee information to the Board, they do not provide continued overhead cost.

Follow-up On Prior Findings

APPENDIX A

✓ - complete

○ - partially complete

✗ - incomplete

Ref	Summary	Completion Due	VITA Status	Task/Comments	APA Status	APA Follow-up
13	Board to require VITA to use only approved rates with no agency exemptions	—	Complete	No action required. VITA in compliance.	✓	
		June 14, 2004	Complete	The revised rate methodology was approved by the ITIB on April 7 and provided to JLARC staff on April 9th. The rate methodology was approved at the Commission's June 14 th meeting and will be effective July 1, 2004.	✓	
	VITA should create architecture and standards to meet business needs at best price	March 3, 2004	Complete	The IT Project Review Committee has received the VITA staff recommendation that major Enterprise Architecture redirections be planned in conjunction with selected Transformation initiatives.	○	As VITA enters transformations and evaluates infrastructure PPEA's, we recommend that they consider agency technology sophistication needs and replenish cycle.
14	Consistently apply VITA policies and procedures	—	Complete	VITA will consistently apply fiscal policies and practices relative to the CIO revised billing approach.	✓	
15	Repay VDOT for staff augmentation	—	Complete	Repayment of \$434,000 was issued by interagency transfer to VDOT on January 4, 2004. A second payment was made in April for \$184,000.	✓	

Project Management Division Statutory Responsibilities

APPENDIX B

✓ - Fulfilling

✗ - Partially or Not Fulfilling

<u>PMD Code of Virginia Requirements</u>	<u>Status</u>	<u>Description of How Fulfilled</u>
2.2-2017 Powers and duties of the Division		
Implement IT approval process in accordance with 2.2-2008:		
2.2-2008 Additional duties of the CIO relating to project management		
1. Develop an approval process for major IT projects to ensure all conform to the statewide information management plan.	✓	All proposed or continuing projects with expenditures planned should be identified in the agency IT strategic plan. Approval of the strategic plans by the CIO allows agencies to proceed with project initiation. Agencies must submit a project proposal outlining the business need, then a project charter authorizing the allocation of resources for initiation of the project. Approval of the project charter and project proposal represents the official beginning of the project. The PMD assists the CIO with approvals using a Balanced Scorecard which is outlined in the Project Management Standard.
2. Establish a methodology for the entire pre-implementation process including guidelines for the oversight of IT projects.	✓	
3. Establish minimum qualifications and standards for project managers.	✓	The CIO is required to establish standards for the qualification and training of IT project managers. VITA has implemented the Project Manager Selection and Training Standard. The components of that standard include: Project Manager testing and training, qualifications, mentoring, a qualification and selection process, and an implementation schedule.
4. Review and approve all procurement solicitations involving major IT projects.	✓	Addressed later in the procurement approval for major IT projects.
5. Direct the development of any statewide or multi-agency enterprise project.	✓	The PMD provides staff support to the Board and the CIO in the approval process of Enterprise IT projects, agency IT strategic plans, and prioritizing of agency budget requests. The PMD has also developed and published project management policies and guidelines.
6. Develop and update a project management methodology for agencies in development of IT.	✗	The CIO must direct the development of policies and procedures for the effective management of IT investments throughout their life-cycle. The CIO issued a Project Management Standard in October 2004 but not all aspects of the standard have been implemented by VITA, such as establishing oversight committees and monitoring projects.
7. Establish an information clearinghouse that identifies best practices and new developments and contains previous experiences of past projects around VA.	✗	VITA has established a clearinghouse on their website and requires lessons learned to be reported by the Project Manager. To date, only three lessons learned have been posted. There are also "best practices" listed on the VITA website.
Assist CIO in creating a project management methodology for developing and implementing IT projects.	✓	PMD assists the CIO in the development and standardization of a project management methodology by developing the Project Management Standard and Guideline.
Provide ongoing assistance and support to agencies and higher education institutions in the development of IT projects.	✗	The PMD, in conjunction with the proponent Secretaries and agency internal oversight committees are required to perform oversight of major IT projects on behalf of the CIO and the Board. The PMD has not had sufficient resources to conduct this oversight.
Establish a program providing cost-effective training to agency project managers.	✓	The CIO has established qualification and training standards for IT project managers. VITA implemented the project manager selection and training standard and partnered with vendors to provide cost-effective training. To date there have been 748 attendees in the Overview class, 76 potential project managers have passed the first test, 56 have passed both tests.
Review agency information management and IT plans and recommend approval to the CIO.	✗	Each agency must develop and maintain an agency IT strategic plan. The PMD must review all agency IT strategic plans when recommending IT project priorities

Project Management Division Statutory Responsibilities

APPENDIX B

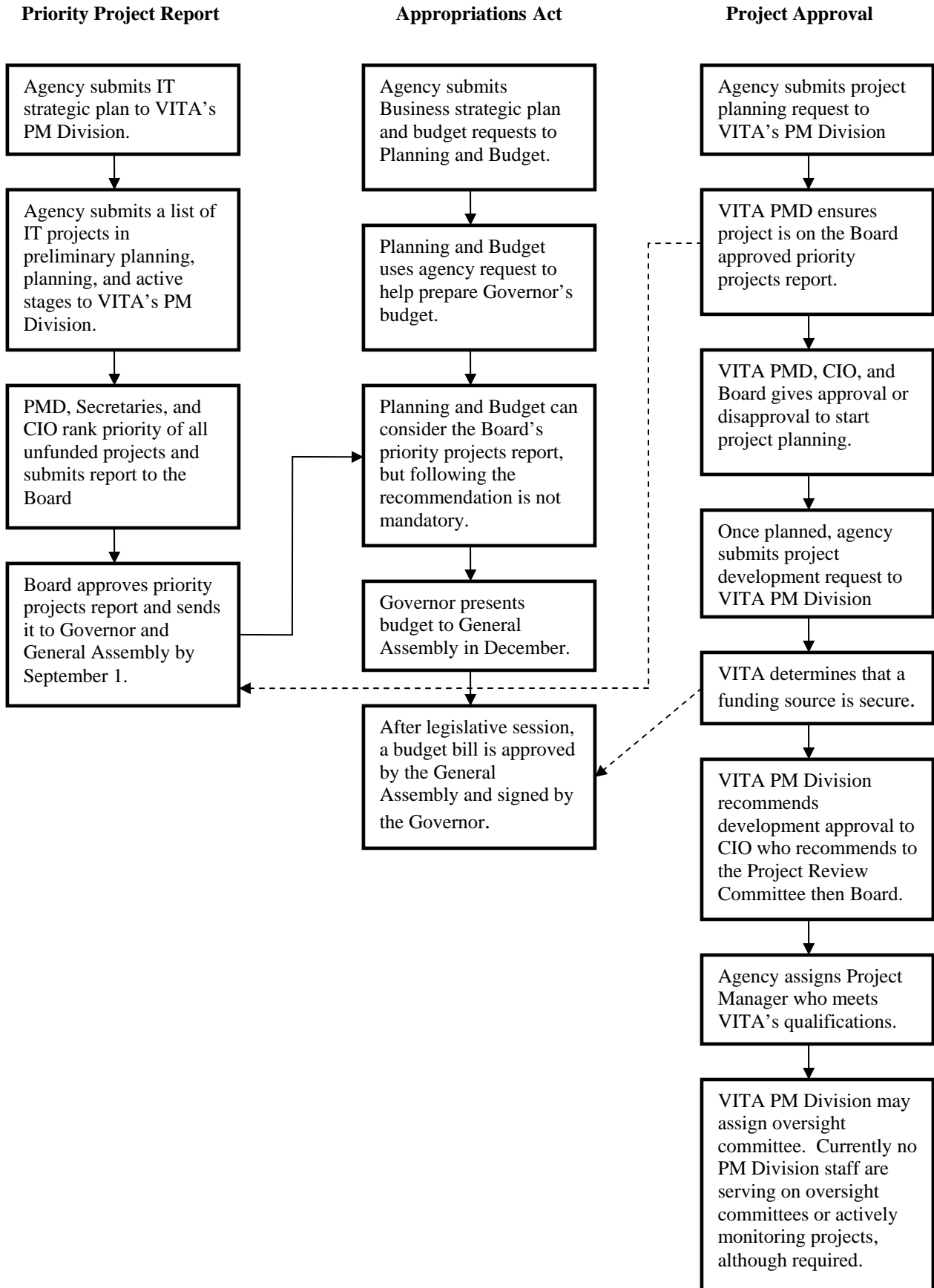
✓ - Fulfilling

✗ - Partially or Not Fulfilling

		to the CIO and Board. PMD does not adequately compare the IT strategic plan to agency business plans to see that technology supports the business objectives.
Monitor the implementation of information management and IT plans and report findings to CIO.	✗	The PMD monitors the implementation of plans by tracking projects in a self-reported Dashboard as well as tracking procurements. Agencies do not consistently complete the Dashboard or are often late, and PMD does not verify what agencies report. PMD does not have sufficient staff to assign to monitor projects.
Assign project management specialists to review and recommend IT proposals based on criteria developed by the Division on: <ul style="list-style-type: none"> • The degree to which the project is consistent with the Commonwealth's overall strategic plan • Technical feasibility of the project • Benefits to the Commonwealth, including customer service improvements • Risks associated with the project • Continued funding requirements • Past performance by the agency or higher education institution. Provide oversight for IT projects.	✗	PMD assigns staff to review the proposed project for the Board approved project selection criteria. There are criteria items, such as consistency with the Commonwealth's IT Strategic Plan that do not exist yet. In addition, we found that PMD does not evaluate whether the project is consistent with the agency's business strategic vision.
2.2-2018 Project planning approval For any major IT project a proposal must be submitted outlining the business need, technology solution, and an explanation of how it will support the agency or higher education institution's business objectives and the Commonwealth IT plan. Project management specialist shall review the proposal and recommend approval or rejection to CIO.	✗	PMD assigns staff to review the proposed project for the Board approved project selection criteria. There are criteria items, such as consistency with the Commonwealth's IT Strategic Plan that do not exist yet. In addition we found that PMD does not evaluate whether the project is consistent with the agency's business strategic vision.
2.2-2019 Project development approval An agency shall submit to PMD a project development proposal containing: <ul style="list-style-type: none"> • Detailed business case including a cost-benefit analysis • Business process analysis • System requirements • Proposed development plan and project management structure • Proposed resource or funding plan If CIO approves proposal it is sent to the Board.	✓	To initiate detailed planning and execution the agency must submit a proposal. The project proposal will provide the basis for a project charter authorizing the allocation of resources for initiation of the project. The agency must also submit a project charter as well as other items required in VITA's Project Management Standard.
2.2-2020 Procurement approval for major IT projects If the Board approves a major IT project and it requires the procurement of goods or services, the agency shall submit a copy of any Invitation for Bid (IFB) or Request for Proposal (RFP) to PMD. The CIO has final authority to approve the IFB or RFP for the award of the project.	✓	PMD reviews all IFB or RFP for projects; then gives their recommendation to the CIO who then has the final authority over approval. Procurement requests that are not part of the agency IT strategic plan are submitted to the PMD with a procurement amendment request form.
2.2-2021 Project oversight When a project has received approval from the Board, the CIO shall establish an internal agency oversight committee. The committee shall provide ongoing oversight and have the authority to approve or reject any changes in the project's scope, schedule or budget. The CIO must ensure the project has adequate project management and oversight structures in place. If it is a statewide or multi-agency project then the oversight committee shall have representatives from agencies impacted by the project and shall be established by CIO.	✗	An IT project oversight committee structure will be designated in the project charter. A representative from PMD will participate in the major IT project oversight committee to provide ongoing assistance. However, we found that PMD does not assign staff to oversight committees currently due to insufficient resources.

Project Approval Process

APPENDIX C



Recommendation 1

The CIO and the Board should update the Commonwealth's IT strategic plan and must consider the Commonwealth's business strategies coming from other organizations, such as the Council on Virginia's Future. Additionally, although the Board has defined parts of the Commonwealth's enterprise architecture, it is incomplete and partially outdated. In March 2004, the Board approved the Commonwealth's Policy regarding strategic planning, but has not started implementing the policy.

For VITA to achieve success, it is important that the Board and CIO establish a long-term Commonwealth IT strategic vision. This vision becomes the baseline against which organizational decisions at the Commonwealth, VITA, individual state agency levels, will measure future performance.

Recommendation 2

The PMD is not fulfilling all of their statutory responsibilities, particularly in the area of project oversight, monitoring, and assistance. This is one of their most critical responsibilities since the primary reason for the creation of the PMD was to reduce the risk of project failure through oversight.

Because PMD is not performing this work, they were unable to provide the CIO and the Board with a status of the project management for the active, major IT projects in the Commonwealth when it was requested. Instead, PMD hired vendors to perform the one-time assessments at a cost that could have funded 5 full-time PMD staff.

PMD has requested a general fund appropriation to increase their staff. Of the nine requested, two are designated to perform work similar to the hired vendors, at a cost of \$209,523, including salary and benefits. This is about \$315,000 less than the cost to hire the vendors for the equivalent number of man days of effort.

General funding is one solution to pay for PMD staff; however, since VITA has traditionally operated as an internal service fund, it is likely that the Governor and General Assembly may reject this funding request. If this occurs, PMD can still hire full-time staff and develop service rates that they charged to the agency IT projects reviews. We recommend that PMD explore this alternative since it would be more cost effective than hiring the vendors and result in reduced costs to the agencies that are eventually paying for these services.

Full-time PMD staff could develop on-going working relationships with the agencies throughout the project development life-cycle, which is generally several years. Having these staff in-house would make them available to the CIO and the Board at all times to give independent updates on the project and recommend project suspension if there were project management concerns.

Recommendation 3

The purpose of the project ranking and selection criteria is to place all Commonwealth projects on a level playing field so that the CIO and Board can consider which projects are most important to achieve the Commonwealth's IT strategic plan. The arbitrary decision to place at least two projects for each Secretary or 30 percent of a Secretary's proposed projects on the Priority Projects report undermines this objective.

We understand that the Board's Project Review Committee is currently re-evaluating the project ranking and selection criteria and has similar concerns about the two projects per Secretary approach. We recommend that the Board improve the ranking process before requesting the information to complete the next annual report.

Recommendation 4

We recommend that VITA submit all their systems development initiatives through the ranking and project selection process so they can be compared to other Commonwealth IT projects.

Recommendation 5

When the Board receives the draft Priority Projects Report from PMD, they expect that PMD has followed their procedures requiring the criteria validation. However, due to staffing shortages and other priorities PMD does not compare the IT and agency strategic plans. As a result, the Priority Projects Report may contain project requests that do not relate to an agency's overall strategic plan.

We recommend that PMD review and compare overall agency and IT plans to ensure the system supports or improves a business process.

Recommendation 6

We recommend that PMD enhance their guidance and instructions to assist agencies in the financial analysis and cost basis analysis of projects. The PMD has provided a project proposal template for agencies to use, but the template could undergo improvement to provide a definition of the specific financial categories and suggest methods to calculate the estimates. For example, the financial template breaks the cost into hardware, training, software, and personnel, but does not provide instructions for the types of items to include in each category and how to best estimate the amounts.

These enhancements would improve the accuracy of agency calculations and reduce the demand on PMD resources to analyze and negotiate better financial information.

Recommendation 7

The current Dashboard system does not contain accurate and timely information so it is not useful to the PMD, the CIO or the Board. The Dashboard or any other status reporting tool is only as reliable and useful as the information users input. Out-of-date information makes Dashboard information futile and obsolete for the Board, CIO, and PMD that uses it to make decisions regarding projects.

The Dashboard does not interface with systems used daily by project managers to monitor and control their projects and the PMD does not enforce their policy requiring monthly Dashboard updates. Even if the policy was enforced, Dashboard's duplicate data entry is inefficient, and since it is only a snapshot in time it becomes outdated quickly.

We recommend the funding of the Portfolio enterprise solution requested by the PMD. This system allows the users to continue to use the MS Project application while providing status

information to the PMD without any additional effort. This will facilitate real-time monitoring of projects by the PMD, the CIO, and the Board.

Recommendation 8

We recommend that VITA place their asset management policies and procedures in an easy to find location on their web page. Although the procedures are only applicable to their staff, it would improve communication to agencies and help them understand that they are no longer responsible for tagging, tracking, and accounting for VITA assets after transition.

Recommendation 9

The current Inventory system is far from being a comprehensive system that can support multiple functions within VITA such as billing and the help desk. However, it is the best system VITA currently has to control assets and to develop future rates. Therefore, it is important the system's data be accurate, current, and complete. There are several things VITA can do to improve the current system.

First, the system's functional capabilities are insufficient and do not meet the basic needs of users. It has limited filter and search capabilities that should be improved to make assets easier to locate and should allow printing within the system. It also cannot handle mass updates of information but only allows changes to one asset at a time, a feature that is especially important if you need to delete, add, or transfer a group of assets. We recommend that VITA continue their current efforts to improve the Inventory system functionality.

Second, the system is does not integrate with other systems such as VITA's Customer Care system (Help desk), which could track asset repairs so problematic assets could be identified and replaced. In the future, the system could also integrate with VITA's billing system so that VITA will know what assets are located at agencies and appropriately charge them for the equipment use. The possibility of the Inventory system integrating with other systems provides VITA with a powerful resource to manage the Commonwealth's infrastructure without creating duplicate data. We recommend that VITA explore opportunities to integrate these systems as VITA transforms, and do not invest significant resources improving the current Inventory system if it is going to be replaced with a comprehensive, integrated system in the near future.

Third, VITA has put forward some general guidelines about their Inventory system but placed them on their extranet, which only VITA employees can view. This has resulted in miscommunication and agency frustration since they cannot locate VITA's procedures and assume they have issued none. In the future, VITA must be forward-thinking when establishing new systems and ensure they develop detailed procedures early, considering how they will implement the procedures and anticipate what problems might arise.

Recommendation 10

We recommend that VITA's security governance (i.e. policies, standards, and guidelines) acknowledge their responsibility to work with agencies to provide security that meets their needs and requirements. Currently, many agencies are continuing to accept responsibility, but we are concerned that this attitude may change as VITA enters transformation and begins to make changes to architectures that benefit the Commonwealth but that affect agencies. As the architecture changes, hardware is replaced, moved, or consolidated, and staff are shifted, agencies

will feel more uncomfortable accepting responsibility for the security of an environment that is unrecognizable to them.

We recommend that VITA educate their staff regarding their IT governance responsibilities. VITA should make themselves an actively participant in the agencies security planning and provide advice and recommendations to improve agency security. The former Department of Information Technology had a reputation of only providing recommendations if agencies specifically requested it. VITA cannot succeed if it continues this attitude, particularly since agencies surrendered their equipment and staff expertise to VITA.

Recommendation 11

The Customer Services Director should continue to set security procedures for specific equipment they operate throughout the Commonwealth. This procedure would ensure VITA's architecture meets defined minimum security standards and provide consistency. The procedures should allow for exceptions, if they are justified and documented and the agency understands the vulnerability associated with the exception and are accepting the risk.

Configuration standards will allow VITA to eventually transform the architecture with greater ease because equipment will already be operating similarly across the Commonwealth. It will also facilitate the shift of staff between agencies since they will have similar operating expectations.

Recommendation 12

VITA's security governance and security operations do not share a common understanding of VITA's security responsibilities. We recommend that the Security Director and Customer Services Director work together so that governance develops policies in line with the common vision and operations establishes their procedures to support the vision.

Recommendation 13

VITA staff have had responsibility for security audits for three years yet the program continues to rely on the Auditor of Public Accounts' risk assessment and audit work rather than an independent risk assessment. Also, the Security Director has made little to no progress developing the program since he was hired. In meetings with the VITA staff, they appear uncertain how to begin identifying the critical databases and the equipment use, how to assess risk, and how to approach auditing them.

While we will continue to share our work, the Security Director must establish a team to work on developing the security audit program. VITA needs to independently identify critical databases, assess risk, and identify where audit work is necessary. Then, the Auditor of Public Accounts and internal auditors can work with the team to compare workplans and identify opportunities to eliminate repetition. Our concern is that the Auditor of Public Accounts' risk model may not identify databases that concern VITA or the agencies; therefore, the database security not adequately audited.

Recommendation 14

We recommend that the Security Director work with the Customer Services Director to use employees in the Customer Services Directorate to assist in performing the technical database

security audits. Hiring experts would be an expensive option and VITA already has technical experts working in operations. These employees work on-site at agencies and could assist in determining critical databases and communications and the related components and their risks. Also, these employees already possess technical expertise to manage equipment such as servers, firewalls, and routers and operate under VITA's security standards which represent best practices. They could audit the equipment managed by other VITA technicians, and this would present a good cross-training opportunity.

Recommendation 15

As the CIO has worked to meet the statutory requirements for creating the Fund and savings methodology, he has identified flaws. We recommend that the CIO continue to analyze alternative models to provide technology investment funding in the Commonwealth while maximizing both State and Federal participation and propose the alternative models to the Board for consideration.

Until there is an alternative method, we recommend that the CFO continue his efforts to develop a savings methodology and receive the Secretary of Finance and Planning and Budget's approval. Additionally, while the current savings chart satisfies a need, we recommend that the CIO also report estimated savings that may be subject to transfer to the Technology Fund under the current model to provide perspective for the Board.



COMMONWEALTH *of* VIRGINIA

Lemuel C. Stewart, Jr.
CIO of the Commonwealth
Email: lem.stewart@vita.virginia.gov

VIRGINIA INFORMATION TECHNOLOGIES AGENCY
411 East Franklin Street, Suite 500
Richmond, Virginia 23219
(804) 225-VITA (8482)

TDD VOICE -TEL. NO.
711

January 10, 2005

Mr. Walter J. Kucharski
Auditor of Public Accounts
P. O. Box 1295
Richmond, Virginia 23218

Dear Mr. Kucharski:

Thank you for the opportunity to review and comment upon the APA's draft audit of the Virginia Information Technologies Agency (VITA). We are in fundamental agreement with the direction and guidance in the report and are eager to move forward.

Your assessment points to many actions already progressing within VITA. In fact, substantial actions are underway related to almost all of the 15 recommendations. The report identifies specifics we must resolve over the coming months to update the Commonwealth's IT strategic plan, meet project management requirements, institutionalize governance requirements, acquire accurate and complete asset data at the enterprise level and implement security standards, policies and practices.

In regards to your second review objective as it relates to eVA, we are making substantive progress with the assistance and full support of the Department of General Services. Strengthening eVA's support of our business processes will take a multi-pronged approach that is more focused on system use and education than technical shortcomings. This approach includes additional training of eVA users to better understand system requirements and capabilities, creation of new system reports to address operational needs, improving visibility of eVA tools to improve search capabilities, and implementing pilot programs to improve ordering functionality.

VITA has accomplished a great deal in its 18-month existence, including:

1. Improving governance and oversight of technology in the Commonwealth through the creation of the Information Technology Investment Board, appointment of the Chief Information Officer of the Commonwealth, establishment of the Project Management Division, and prioritization of technology investments across the Commonwealth.
2. Successfully transitioning 90 executive branch agencies' infrastructure assets and support personnel while maintaining continuity of services and performance commitments and exceeding the consolidation deadline established by the General Assembly.
3. Providing value-add to customers and localities, including cost savings and avoidances, protection from computer viruses and worms, and support of agencies impacted by the Capitol Campus construction project.
4. Centralizing procurement for IT-related goods and services and instituting process changes so procurements are faster, simpler, and less expensive.

5. Achieving savings and cost avoidance of \$26.5M by the end of 2004 in reduced hardware and software procurement costs, telecommunications contract renegotiations, and other savings strategies.
6. Meeting all deadlines mandated by the Governor and the General Assembly for planning and reporting.
7. Implementing the Project Manager Development Program to establish minimum qualifications and standards for project managers and provide cost-effective training to agency project managers.
8. Establishing a project management methodology and approval processes for IT projects.

I will prepare a recommended action plan for consideration and adoption by the Board at its February 2005 meeting that will be developed in conjunction with the Finance and Audit Review Committee of the Board.

We appreciate, in particular, the professionalism of lead auditor Karen Helderman and look forward to the APA's continued guidance and advice to ensure the success of VITA.

Sincerely,



Lemuel C. Stewart, Jr.
CIO of the Commonwealth

Attachment

C: The Honorable Eugene J. Huang, Secretary of Technology
Judy Napier, Assistant Secretary of Technology
Members, Information Technology Investment Board
James T. Roberts, Director, Department of General Services

VIRGINIA INFORMATION TECHNOLOGIES AGENCY

Richmond, Virginia

BOARD MEMBERS

As of December 15, 2004

The Honorable Eugene J. Huang, Chairman
Secretary of Technology

Dr. Mary Guy Miller, Vice Chairman

Chris Caine	John C. Lee, IV
Jimmy Hazel	James F. McGuirk, II
Hiram Johnson	Scott Pattison
Walter Kucharski	Len Pomata

CHIEF INFORMATION OFFICER

Lemuel C. Stewart

